AMENDMENTS TO THE CLAIMS

Claim 1 (Currently Amended)   A video object segmentation method applicable to a video system, comprising the steps of:

a) defining and primarily segmenting objects existing in a first frame of a video sequence manually or semi-manually based on spatial information; and

b) automatically segmenting the objects defined and segmented the first frame in a second frame within a moving video sequence including the primarily segmented object by performing object-tracking based on movement of the objects defined and segmented in the first frame.

Claim 2 (Original)   The video object segmentation method in accordance with claim 1, further comprising the steps of:

c) determining whether any scene change is made between consecutive frames or any new object other than the primarily segmented object appears within the video sequence being automatically segmented, when repeatedly performing the step b) for consecutive frames; and

d) repeatedly performing the first step, if the answer of the step of determining is positive.

Claim 3 (Original)   The video object segmentation method in accordance with claim 2, further comprising the steps of:

e) examining the quality of automatically segmented results, if there is no scene change between consecutive frames and any new object other than the primarily segmented object does not appear within the video sequence being automatically segmented;

f) performing the second step, if the quality of automatically segmented results is satisfactory; and

g) repeatedly performing the first step, if the quality of automatically segmented results is not satisfactory.

Claim 4 (Original)   The video object segmentation method in accordance with claim 1, wherein the first step of primarily segmentation is made by segmenting the objects within the frame in completely manual using an user interface tool.

Claim 5 (Original)   The video object segmentation method in accordance with claim 1, wherein the first step of primarily segmentation is made by segmenting the object within the frame in semi-manual, such that, if the user designates manually a rough boundary line of the object within the frame, then the object within the frame is automatically segmented based on the designation-related information and an image segmentation information.

Claim 6 (Original)   The video object segmentation method in accordance with claim 1, wherein the second step of automatically segmentation comprises the step of:

tracking the object region in the current frame to which the primarily segmented video object in the previous frame is moved, so as to segment the object within the frame of the consecutive frames.

Claim 7 (Original)   The video object segmentation method in accordance with claim 5, wherein the image segmentation information is a spatial information including a brightness information and a color information.